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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TSEGAYE, SABA	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,217	HARALD, ECKHARDT	
	Examiner	Art Unit	
	Saba Tsegaye	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed 8/16/06. Claims 1-15 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 102

2. Claims 1, 2, 4-8 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuzawa et al. (2003/0067929 A1).

Regarding claims 1, 5 and 7, Matsuzawa discloses, in Figs. 1-4, a network-unit for use in a telecommunication network and comprising

- at least one input (321, 331) for receiving a signal comprising a first field (cut-through label identifier in the OUI field of the SANP header; steps 403-409) which is directly analyzable (paragraph 0099) and a second field (not cut-through decelerator) network which is analyzable after a processing (0085; 0089; 403-404),

- a first analyzer (341) coupled to said at least one input for analyzing first information originating from said first field (0093),

- a processor (301, 305) for performing said processing of second information originating from said second field (0090), and

- a second analyzer (306) coupled to said processor for analyzing processed second information (0090),

- at least one output for sending a further signal to a further network-unit and comprising a third field, which is directly analyzable, and a fourth field which is analyzable after a processing in said further network-unit (0131),

wherein said first analyzer (341) is coupled to said processor for, in dependence of an analysis result of said first information, selecting at least one output and switching at least a port of said signal to said selected output or performing said processing, with said first information comprising non-address information, and with said second information comprising address information defining further network-units (0086-0088).

Regarding claims 2, 6 and 8, Matsuzawa discloses network unit wherein the network unit further comprises:

- a first generator coupled to said at least one output for generating said third information (steps 405-409; 0101), and

- a second generator (361) coupled to said at least one output for generating said fourth information (processing unit 361 overwrites the MAC header information, LLC header information, and /or SNAP header information and directly transfers the MAC frame to the output interface without passing the datagram processing unit 301 (0096)).

Regarding claims 4, and 10, Matsuzawa discloses network unit wherein the processing corresponds with de-fragmentation, decompression, demultipelxing and/or table consultation (371, 303, 304).

Regarding claim 11, the network-unit wherein the first field comprises layer 2 header (0082) and wherein the second field comprises a layer 3 header (0085; 0090).

Regarding claim 12, Matsuzawa discloses the network-unit wherein the first filed comprises a plurality of subfields (101, 102, 103), wherein one of the pluralities of subfields comprises the first information (cut-through label identifier).

Regarding claim 13, Matsuzawa discloses the network unit wherein the first field is the first occurring field among a plurality of fields (see figs 1 and 2) of a packet of the signal (cut-through label identifier).

Regarding claim 14, Matsuzawa discloses the network unit wherein said first information comprises an indication of a relevance of the second information (0020).

Regarding claim 15, Matsuzawa discloses the network unit wherein the further signal is an output signal of the network unit, which is sent to a second network unit (0106).

Claim Rejections - 35 USC § 103

3. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzawa et al. in view of Mauger et al (EP 1001577 A1).

Matsuzawa discloses all the claim limitations as stated above. Further, Matsuzawa discloses that datagram processing unit 201 has a function for carrying out the processing to

determine a router or host to which the packet is to be transferred next and a corresponding network connection interface, according to **a destination information** of datagram such as that of **IP** (claimed second field comprising an IP-address field for indicating an IP-address; column 6, lines 42-51). However, Matsuzawa does not expressly disclose that the first field comprises a quality field for indicating a quality.

Mauger teaches that at an IP network incorporating a plurality of nodes. At each node, a current packet label is used to determine the onward routing of the packet. The label is typically 4 bytes length comprising a 3-bit class of service field to maintain QoS differentiation (see fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Matsuzawa's first field to comprise a quality field, as thought by Mauger. Doing so allows a number of priorities levels to be defined as well as enables the provision of quality of services guarantees to the admitted traffic.

Response to Arguments

4. Applicant's arguments filed 08/16/06 have been fully considered but they are not persuasive. Applicant argues (Remarks, page 9) that Matsuzawa does not disclose a second field, which is analyzable after processing. Examiner respectfully disagrees. Matsuzawa clearly discloses a LLC header 205 which is a three-byte identifier representing the upper-layer protocol. Further, Applicant argues (Remarks, page 10): "Matsuzawa does not disclose a processor for performing said processing of second information originating from said second field". Examiner respectfully disagrees with Applicant assertion. Matsuzawa, as pointed out above, discloses a logical link control header 205 is a three-byte identifier representing the upper-layer service

defined by the 802 committee. Furthermore, Matsuzawa discloses that an LLC-header processing unit 306 determines the upper-layer protocol based on the value of the LLC header described in the received MAC frame and then delivers the data to the datagram processing unit 301 or L3/MAC processing unit 305. Applicant, further, argues (Remarks, pages 10-11): "the aspect of Matsuzawa cited by the Examiner discloses conducting a search in a datagram flow table 303 using datagram flow identifying information. However, there is no teaching or suggestion of sending a further signal let alone that the signal comprises a third field and a fourth field." Examiner respectfully disagrees. Matsuzawa clearly discloses that in datagram flow table 303, a search is conducted by using the datagram flow identifying information as key. The datagram flow identifying information is for example one of or any combination of: the destination IP address, the source IP address, the upper-layer protocol information, the destination upper layer protocol port information (e.g., TCP port number), and the source **upper –layer** protocol port information, all of which are included in the datagram to **be transferred**. Using TCP/IP standard it is inherent to send a further signal that comprises a third field and a fourth field. Furthermore, the instant application, page 1, admitted that sending a further signal that comprises a third field and a fourth field is known in telecommunication network.

Applicant argues that claim 12 recited "wherein said first field comprises a plurality of subfields, wherein one of the pluralities of subfields comprises the first information.... Matsuzawa does not discloses a first field comprising a plurality of subfields." Examiner respectfully disagrees with applicant assertion. Matsuzawa clearly discloses that the cut-through **decelerator 101** represents that the frame belongs to a packet flow to be **transferred by the cut-through scheme** rather than by using the **ordinary network-layer** transfer scheme. The flow

identifier 102 is used for **identifying in data link layer** the packet flow that is to be transferred by the cut-through transfer scheme. The link **address 103** is used for identifying a neighboring node on the path on which the packet flow is transferred **by the cut-through transfer scheme**.

Applicant argues that claim 13 recite "wherein said first field is the first occurring field among a plurality of fields of a packet of the signal." It is apparent upon viewing fig. 2 of Matsuzawa that the OUI field, first field as cited by the examiner, is not a first occurring field among the plurality of MAC frame 201. Examiner respectfully disagrees with Applicant assertion. The first filed is a layer 2 header. Matsuzawa discloses data link-layer (cut-through transfer) switching system, which is the next-hop node, is determined in the data link layer without referring to network layer information described in the packet. As shown in Fig. 1, a format of a cut-through label identifier used in achieving the cut-through transfer function provided in a router.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ST
November 11, 2006

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER